REMARKS

Claim 26 is currently being amended to obviate the Examiner's rejection under 35 U.S.C. 112, 1st paragraph. Basis for the amendment can be found on page 21, lines 16-21 in Applicant's specification.

The amendment presented herein does not introduce new matter within the meaning of 35 U.S.C. §132. Accordingly, Applicant respectfully requests the Examiner to enter the amendment.

1. Rejection of Claims 17-30 Under 35 U.S.C. §112, 1st Paragraph

Applicant respectfully traverses the rejection of claims 17-30 under 35 U.S.C. 112, first paragraph.

First and foremost, Applicant respectfully believes basis for Applicant's previous amendments to claims 17 and 25-27 can be found throughout Applicant specification, including on page 2, lines 8-18, as well as on page 9, line 22 - page 15, line 2. Accordingly, for this reason alone, Applicant respectfully believes the instant rejection should be withdrawn.

Notwithstanding, there is no *in haec verba* requirement to satisfy the requirements of 35 U.S.C. 112, 1st paragraph. In fact, "If applicant amends the claims and points out where and/or how the originally filed disclosure supports the amendment(s), and the examiner finds that the disclosure does not reasonably convey that the inventor had possession of the subject matter of the amendment at the time of the filing of the application, **the examiner has the**

initial burden of presenting **evidence** or **reasoning** to explain **why** persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims." See MPEP §2163 (II)(A), and §2163.04. Accordingly, since the current rejection falls short of the required showing of evidence or reasoning, as well as why a person skilled in the art would not recognize in the disclosure a description of the currently claimed process, Applicant respectfully believes the current rejection should be withdrawn.

Therefore, Applicant respectfully believes claim 17-30 fully comply with 35 U.S.C. §112, and kindly requests the Examiner to withdraw the current rejection.

2. Rejection of Claim 26 Under 35 U.S.C. §112, 1st Paragraph

Applicant has amended claim 26 to obviate the instant rejection. Therefore, Applicant respectfully believes claim 26 fully complies with 35 U.S.C. §112, and kindly requests the Examiner to withdraw the current rejection.

3. Rejection of Claims 17-30 Under 35 U.S.C. §103(a) to Fischer, et al. in view of Mehta, et al.

Applicant respectfully traverses the rejection of claims 17-30 to U.S. Patent 6,248,829 (herein referred to as "Fischer, et al.") in view of U.S. Patent 6,583,227 (herein referred to as "Mehta, et al.").

The U.S. Supreme Court in Graham v. John Deere Co., 148

U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

First and foremost, as outlined in Applicant's previous response of June 27, 2008, Applicant respectfully believes Fischer, et al. fails to disclose, teach, or suggest Applicant's currently claimed propylene copolymer compositions comprising propylene copolymers A) and B), the propylene copolymers A) and B) are present as separate phases comprising a portion of n-hexane soluble material less than or equal to 2.6% by weight, wherein the propylene copolymer composition is obtained from **a two-stage or multistage polymerization process** comprising a catalyst system comprising a **metallocene compound**, wherein the catalyst system is used in each polymerization stage.

In fact, Fischer, et al. discloses in col. 11, line 63 - col. 12, line 11,

> The preparation of the novel polymers of propene can be carried out by a number of processes which are likewise subject matter of the present invention. In one of these processes, the propene copolymers (A) and (B') or the propene homopolymer (B') obtained with the aid of the above-described metallocene catalyst system are, **after they have been prepared separately, physically mixed with one another** at from 150 to 300° C., in particular from 180 to 280° C. In this way, the novel polymers of propene **are formed as a blend** of the propene copolymer (A') and the propene copolymer (B') or the propene homopolymer (B').
>
> **The physical mixing** is carried out in customary mixing equipment, for example in kneaders, Brabender mixers, in mills or else in extruders, preferably in extruders. Here, twin-screw extruders have been found to be particularly advantageous. (Emphasis added)

However, Applicant's currently claimed copolymer compositions are obtained from a **two-stage or multistage polymerization process**. Accordingly, for this reason alone, Applicant respectfully believes the current rejection should be withdrawn.

Notwithstanding, Applicant has unexpectedly found the currently claimed propylene copolymer compositions comprise much lower tensile E modulus values, much higher Charpy impact toughness values, and much higher Charpy notched impact toughness values than the compositions of Fischer, et al. In particular, Examples 4-8 in Fischer, et al. disclose tensile E modulus values ranging from 1173-1326 MPa (ISO 527), while Applicant's exemplary propylene copolymer composition comprises a tensile E modulus value of 481 MPa (ISO 527). Accordingly, Applicant's exemplary copolymer comprises a

tensile E modulus value **about 244%** to **about 276%** less than Examples 4-8 in Fischer, et al.

Additionally, the Charpy impact toughness values and the Charpy notched impact toughness values of Examples 4-8 in Fischer, et al, as well as Applicant's exemplary propylene copolymer, are provided in the chart below.

	Ex. 4 (kJ/m^2)	Ex. 5 (kJ/m^2)	Ex. 6 (kJ/m^2)	Ex. 7 (kJ/m^2)	Ex. 8 (kJ/m^2)	**Instant Exemplary Copolymer (kJ/m^2)**
Charpy Impact Toughness (+23°C)	200	220	228	236	-	**NF***
Charpy Impact Toughness (0°C)	80	85	96	115	101	**NF***
Charpy Impact Toughness (-20°C)	16	16	16	17	16	**257**
Charpy Notched Impact Toughness (+23°C)	4.0	4.4	4.9	5.3	5	**45.0**
Charpy Notched Impact Toughness (0°C)	1.2	1.4	1.5	1.5	2	**32.5**
Charpy Notched Impact Toughness (-20°C)	1.0	0.9	0.9	0.9	1	**2.5**

* NF: No Fracture

Accordingly, with respect to the Charpy impact toughness values and the Charpy notched impact toughness values, Applicant's exemplary copolymer unexpectedly comprises much higher values. Therefore, in light of the deficiencies of Fischer, et al., which are not remedied by Mehta, et al. as discussed below, as well as Applicant's unexpected results, Applicant respectfully believes the instant rejection should be withdrawn.

Furthermore, with respect to the instant rejection, the current Office Action states on page 6, lines 10-11,

> The patent to Fischer et al does not teach the inclusion of a nucleant additive in the disclosed composition.

In order to bridge this acknowledged gap, the current Office Action then states on page 6, lines 12-17,

> The reference to Mehta et al teaches at column 18 (lines 6-17) additives that are 'commonly employed with plastics' including the polypropylene resins taught by the reference, include nucleants.
>
> Subsequent use of a nucleant, as taught by Mehta et al, in the composition of Fischer et al for the benefits thereof would have been prima facie obvious to a skilled artisan.

However, first and foremost, Mehta, et al. discloses in col. 2, line 60 - col. 3, line 6,

> The objects of the invention are achieved by providing **a propylene homopolymer** and copolymer having a broad molecular weight distribution, while maintaining a high level of crystallinity. This is achieved by providing in one embodiment a TCR propylene polymer comprising: (a) from 10 to 90 wt % **homopolymerized crystalline propylene** units; and (b) from 90 to 10 wt % crystalline propylene copolymer wherein the wt % of the comonomer based on the total weight of the polymer is in the range of from 0.05

> to 15; wherein each polymer is prepared in a separate stage utilizing in each stage a metallocene catalyst system comprising two metallocene catalyst components and wherein the polymer has a molecular weight distribution (Mw/Mn) in the range of from 2.1 to 10. (Emphasis added).

Alternatively, Applicant is currently claiming a propylene copolymer composition comprising, at the very least, A) **a propylene copolymer** containing from 1 to 20% by weight of olefins other than propylene; and B) at least one **propylene copolymer** containing from 10 to 30% by weight of olefins other than propylene. Accordingly, since Mehta, et al. clearly relates to completely different polymers, Applicant respectfully believes the current rejection should be withdrawn for this reason alone.

Notwithstanding, as outlined *supra*, Applicant has unexpectedly found the currently claimed propylene copolymers comprise much lower tensile E modulus values, much higher Charpy impact toughness values, and much higher Charpy notched impact toughness values than the compositions of Fischer, et al. Additionally, Mehta, et al. does not remedy the deficiencies of Fischer, et al. In fact, as outlined *supra*, Mehta, et al. discloses completely different polymer compositions.

Therefore, in light of the above, claims 17-30 are therefore believed to be patentable over Fischer, et al. in view of Mehta, et al. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

4. Rejection of Claims 17-27 Under 35 U.S.C. §103(a) to Datta, et al.

Applicant respectfully traverses the rejection of claims 17-27 to U.S. Patent 6,635,715 (herein referred to as "Datta, et al.").

The U.S. Supreme Court in Graham v. John Deere Co., 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

Arguments *supra* regarding Fischer, et al. and Mehta, et al. are incorporated herein by reference in their entirety.

With respect to instant rejection, the current Office Action states,

> The reference to Datta et al teaches the production of **a reactor blend** of a propylene copolymer blend that may comprise a propylene copolymer. . . . (Emphasis added)

However, Datta, et al. discloses in col. 10, 16-47, and col. 11, 57-62,

The Blend of First and Second Polymer Components

The copolymer blends of first polymer component and second polymer component of the instant invention may be prepared by any procedure that guarantees the intimate admixture of the components. For example, the components can be combined **by melt pressing the components together** on a Carver press to a thickness of about 0.5 millimeter (20 mils) and a temperature of about 180° C., rolling up the resulting slab, folding the ends together, and repeating the pressing, rolling, and folding operation about 10 times. **Internal mixers** are particularly useful for solution or **melt blending**. Blending at a temperature of about 180° C. to 240° C. in a Brabender Plastograph for about 1 to 20 minutes has been found satisfactory. Still another method that may be used for admixing the components involves **blending the polymers in a Banbury internal mixer** above the flux temperature of all of the components, e.g., 180° C. for about 5 minutes. The complete admixture of the polymeric components is indicated by the narrowing of the crystallization and melting transitions characteristic of the polypropylene crystallinity of the components to give a single or a small range crystallization and melting points for the blend. These **batch mixing** procedures are typically supplanted by continuous mixing processes in the industry. These processes are well known in the art and include single and twin screw mixing extruders, static mixers for mixing molten polymer streams of low viscosity, impingement mixers, as well as other machines and processes, designed to disperse the first polymer component and the second polymer component in intimate contact.

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The mechanism by which the desirable characteristics of the present copolymer blends are obtained is not fully understood. . . . However, **the intimate blending** of the polymers having the required crystallinity characteristics apparently results in a crystallization phenomenon that modifies the other physical properties of the propylene/alpha-olefin copolymer, thus measurably increasing its commercial utility and range of

applications. (Emphasis added)

Accordingly, Applicant respectfully traverses the Examiner's contention Datta, et al., ". . . teaches the production of **a reactor blend**. . . ." In fact, as outlined *supra*, Datta, et al. discloses blending two polymer components via **physical blending procedures**, and that such physical blending is critical to the production of the resultant polymers disclosed therein. This fact is further clearly illustrated given every working example, whether exemplary or comparative, demonstrates physically blending the two polymer components together. However, Applicant is currently claiming a process wherein the propylene copolymer composition is obtained from a two-stage or multistage polymerization process comprising a catalyst system comprising a metallocene compound, wherein the catalyst system is used in each polymerization stage. Accordingly, Applicant respectfully believes the current rejection should be withdrawn.

Furthermore, Applicant respectfully traverses the Examiner's contention that,

> a skilled artisan producing an identical product would have a high expectation to achieve the same haze values. . . .,

as well as,

> . . . the amount of extractables would be expected, or easily controlled, as crosslink density will determine soluble fractions and a skilled artisan would know to manipulate these values for desired end-use characteristics. As such, a skilled artisan would have a high level of expectation of success following the

teachings of the reference to achieve the claimed inventions.

However, given the differences outlined *supra*, especially in light of Applicant's unexpected results, Applicant respectfully believes any reliance on inherency is unfounded. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is **necessarily** present in the thing described in the reference. Inherency, however, may **not** be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). (Emphasis added); See MPEP §2163.07(a).

Additionally, as eluded *supra* with respect to the instant rejection, Applicant has unexpectedly found the currently claimed propylene copolymer compositions comprise much lower tensile E modulus values, much higher Charpy impact toughness values, and much higher Charpy notched impact toughness values, which are not disclosed, taught, or suggested in Datta, et al. Furthermore, Applicant respectfully believes one having ordinary skill in the art would not have been motivated to modify Datta, et al., at the time of filing of Applicant's instant application, to try an arrive at Applicant's currently claimed propylene copolymers, as well as the currently claimed process for preparing Applicant's currently claimed propylene copolymers, the currently claimed process for producing fibers, films or moldings from Applicant's currently

claimed propylene copolymers, and the currently claimed fibers, films, or moldings comprising Applicant's currently claimed propylene copolymers.

In light of the above, claims 17-30 are therefore believed to be patentable over Datta, et al. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

5. DOUBLE PATENTING REJECTION

Applicant kindly requests the Examiner to hold the provisional double patenting rejection to co-pending Application Serial No. 10/517,580 in abeyance since neither application has issued as a patent.

CONCLUSION

Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the references of record. The Examiner is therefore respectfully requested to reconsider and withdraw all rejections and allow all pending claims 17-30. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

The Examiner is welcomed to telephone the undersigned practioner if he has any questions or comments.

Serial No. 10/517,588

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on January 26, 2009

Signature

Date January 26, 2009